National Institute of Environmental Health Sciences

Correlates of hot day air-conditioning use among middle-aged and older adults with chronic heart and lung diseases: The role of health beliefs and cues to action

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Abstract:

Extreme ambient heat is a serious public health threat, especially for the elderly and persons with pre-existing health conditions. Although much of the excess mortality and morbidity associated with extreme heat is preventable, the adoption of effective preventive strategies is limited. The study reported here tested the predictive power of selected components of the Health Belief Model for air-conditioning (AC) use among 238 non-institutionalized middle-aged and older adults with chronic heart failure and/or chronic obstructive pulmonary disease living in Montreal, Canada. Respondents were recruited through clinics (response rate 71%) and interviews were conducted in their homes or by telephone. Results showed that 73% of participants reported having a home air conditioner. The average number of hours spent per 24-hour period in air-conditioned spaces during heat waves was 14.5 hours (SD Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 9.4). Exploratory structural equation modeling showed that specific beliefs about the benefits of and drawbacks to AC as well as internal cues to action were predictive of its level of use, whereas the perceived severity of the effects of heat on health was not. The findings are discussed in light of the need to adequately support effective response to extreme heat in this vulnerable population.

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Resource Description

Communication: ☑

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☑

audience to whom the resource is directed

Public

Early Warning System: ☑

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Non-U.S. North America

Health Impact:

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Respiratory Effect

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): heart failure

Respiratory Effect: Chronic Obstructive Pulmonary Disease

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Elderly

Other Vulnerable Population: pre-existing medical conditions

Resource Type:

format or standard characteristic of resource

Research Article

Resilience: ☑

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content